

REMARKS

Continued examination is respectfully requested. Claims 1-9, and 11-21 are now pending, wherein claims 1 and 3 are amended and claims 11-21 are new. Support for new claims 11-21 can be found in the present application at least at pages 3-10 and Figures 1 and 2.

The specification is objected to and claim 1 is rejected under 35 U.S.C. § 112, first paragraph. Claim 1 has been amended to recite that a user has a valid cellular mobile account, thereby addressing the objection and rejection. Accordingly, withdrawal of the objection and rejection is respectfully requested.

Claims 1-9 are rejected under 35 U.S.C. §103(a) as unpatentable over European patent document EP 0 944 203 A2 ("Turunen") in view of U.S. Patent No. 6,563,800 to Salo et al. ("Salo") and Mouly et al., "*GSM System for Mobile Communications*" ("Mouly"). This ground of rejection is respectfully traversed.

REJECTION OF CLAIM 1

Pursuant to 37 C.F.R. § 1.111(c), Applicants submit that claim 1 is novel and non-obvious in view of the combination of Turunen, Salo and Mouly because this combination does not disclose or suggest the following elements of

Applicants' claim 1:

1. a home authentication, authorization and accounting server (HAAA) and a visitor authenticating authorization and accounting (VAAA) server;
2. identity information sufficient to enable said VAAA server to communicate with said HAAA server so as to authenticate

the proposed connection is conveyed by user intervention to the VAAA server;

3. the PIN is encoded and forwarded to the user's mobile telephone and transferred to the browser to authenticate the requested visiting access to the W-LAN; and
4. the cost of such access is billed to the user's cellular mobile account.

I. The Combination of Turunen, Salo and Mouly Does Not Disclose or Suggest a Home Authentication, Authorization and Accounting Server (HAAA) and a Visitor Authenticating Authorization and Accounting (VAAA) Server

Turunen discloses a system for mobile internet access that allows a mobile internet-access host 9 to roam from a local area network 3 to a GSM network 6 or "Hot spot LAN" 7 or 8. When mobile host 9 roams, it deregisters from local area network 3 and registers with GSM network 6. The local area network's home agent HA sends an internet security key via GSM Short Message Service (SMS) to mobile host 9. *Mobile host 9 then sends its new address with authentication data generated using the security key to the home agent HA.*

The Office Action states that the foreign agent FA of Turunen corresponds to the visitor authentication, authorization and accounting (VAAA) server of Applicants' claim 1, and that the home agent HA of Turunen corresponds to the home authentication, authorization and accounting (HAAA) server of Applicants' claim 1. However, Turunen is completely silent on either the home agent HA or foreign agent FA having any type of accounting function. The Office Action has provided no evidence or reasoning to support the assertion that the HA of

Turunen corresponds to an HAAA or that the FA of Turunen corresponds to a VAAA. This assertion in the Office Action, therefore, is not sufficient to establish a *prima facie* case of obviousness. Accordingly, the home agent HA of Turunen does not correspond to the home authentication, authorization and *accounting* (HAAA) server of Applicants' claim 1 and the foreign agent FA of Turunen does not correspond to the visitor authentication authorization and *accounting* (VAAA) server of Applicants' claim 1.

Salo and Mouly, like Turunen, both do not disclose or suggest VAAA and HAAA servers. Because Turunen, Salo and Mouly each do not disclose or suggest VAAA and HAAA servers, much less such servers arranged as recited in claim 1, even if one skilled in the art would have been motivated to combine these disclosures, the combination could not possibly disclose or suggest VAAA and HAAA servers arranged as recited in Applicants' claim 1.

A similar argument to that discussed above was present in the After-Final Reply filed April 5, 2006. The Advisory Action states that these elements are not recited in the claims. Claim 1, however, clearly recites a visitor authentication, authorization and accounting (VAAA) server and home authentication, authorization and accounting (HAAA) server. Specifically, claim 1 includes three references to each of the VAAA and HAAA servers. These servers are defined in claim 1 as authentication, authorization and accounting servers. Because claim 1 specifically defines these servers as being authentication, authorization and accounting servers, it is respectfully submitted that this in fact recited in

Applicants' claim 1. Because these argued elements are recited in Applicants' claim 1, and the Patent Office has not yet provided an explanation of how the combination of Turunen, Salo and Mouly discloses or suggests this element, Applicants' respectfully request that the next communication from the Patent Office provide an explanation as to how this combination discloses or suggests this element or withdraw this ground of rejection.

The Advisory Action also states this argument as presented in Applicants' After-Final Reply does not comply with 37 C.F.R. § 1.111(c) as failing to clearly point out the patentably novelty of the claim. These arguments, however, identify the element of claim 1 that is not disclosed or suggested by the combination of Turunen, Salo and Mouly and discusses why each of these prior art references do not disclose or suggest this element. These arguments, therefore, comply with 37 C.F.R. § 1.111(c).

II. The Combination of Turunen, Salo and Mouly Does Not Disclose or Suggest that Identity Information Sufficient to Enable said VAAA Server to Communicate with said HAAA Server so as to Authenticate the Proposed Connection is Conveyed by User Intervention to the VAAA Server

Regarding conveying to the VAAA server by user intervention identity information, the Office Action states that a user moving the mobile host to a foreign network corresponds to the user intervention. However, Applicants' claim 1 recites that the identity information is conveyed "by user intervention"

and not merely that after a user moves a mobile host that the host automatically sends information to its home agent HA as disclosed by Turunen.

The response to arguments section of the final Office Action states that column 1, lines 25-28, paragraph 5, column 2, lines 35-52, and paragraphs 12, 30, 31 and 33 of Turunen disclose this element of Applicants' claim 1. These sections at most disclose the mobile host 9 sending information to the home agent (HA) and not "to the VAAA server" as recited in Applicants' claim 1. For example, paragraph 33 states that a "registration message is therefore transmitted, over the Internet 5, from mobile host 9 to the corporate LAN's *home agent* to register the mobile host's new Internet address". (emphasis added). Therefore, even if it is assumed that the movement of the mobile host corresponds to the user intervention recited in Applicants' claim 1, Turunen still fails to disclose or suggest that the movement of the mobile host conveys identity information to the foreign agent (FA) as would be required to reject Applicants' claim 1.¹

Additionally, Turunen discloses that mobile host 9 receives the internet security key from the home agent and an internet address from the foreign agent. *Mobile host 9 then sends* this internet address with authentication data *to the home agent HA* of local area network 3. In contrast, Applicants' claim 1 recites that the "identity information sufficient to enable said VAAA server to

¹ Applicants are not asserting that the claims recite a home agent, but instead are substituting the elements of Turunen into Applicants' claims in order to demonstrate that the elements identified by the Office Action as corresponding to certain elements in Applicants' claim do not in fact operate in the same manner as recited in Applicants' claim.

communicate with said HAAA server so as to authenticate the proposed connection". (emphasis added) There is no disclosure or suggestion in Turunen of the foreign agent FA being enabled by the received identity information to communicate with the home agent HA as would be required to reject Applicants' claim 1 under the reasoning provided by the Office Action.

Salo and Mouly, like Turunen, do not disclose or suggest that "identity information sufficient to enable said VAAA server to communicate with said HAA server so as to authenticate the proposed connection" as recited in Applicants' claim 1. Because Turunen, Salo and Mouly all fail to disclose or suggest this element of Applicants' claim 1, even if one skilled in the art were motivated to combine these documents in the manner described in the Office Action, such a combination could not possibly disclose or suggest this element of Applicants' claim 1.

A similar argument to that discussed above was present in the After-Final Reply filed April 5, 2006. The Advisory Action states that these elements are not recited in the claims. Claim 1, however, clearly recites "a user requesting visiting access to the first W-LAN...conveys to the VAAA server, by user intervention, identity information sufficient to enable said VAAA server to communicate with said HAAA server." (emphasis added). Therefore, contrary to the statement in the Advisory Action, this argument is clearly directed to an element specifically recited in claim 1.

The Advisory Action also states that this argument does not comply with 37 C.F.R. § 1.111(b) as the argument amounts to general allegations that do not specifically point out how the claim language patentably distinguishes over the prior art applied in the rejection. The arguments in Applicants' previous Reply and those present above, however, identify a claim element not disclosed or suggested by the combination of Turunen, Salo and Mouly and discusses why each of these prior art references do not disclose or suggest this element. A rejection based upon a combination of prior art references that do not disclose or suggest a claim element is not a proper rejection, and therefore, identifying these elements does in fact specifically point out how the claim language patentably distinguishes over the prior art applied in the rejection. This Reply, therefore, complies with 37 C.F.R. § 1.111(b).

III. The Combination of Turunen, Salo and Mouly Does Not Disclose or Suggest that the PIN is Encoded and Forwarded to the User's Mobile Telephone and Transferred to the Browser to Authenticate the Requested Visiting Access to the W-LAN

Turunen discloses that mobile host 9 sends authentication data, derived from the internet security key, to the home agent HA. Turunen does not disclose or suggest that the internet security key, or the authentication data derived from the key, is used by a browser to "authenticate the requested visiting *access to the W-LAN*." In other words, Turunen does not disclose or suggest that the internet

security key or anything derived from the key is used for authenticating *access to the first W-LAN*, or even the transfer of any information to a browser.

In response to similar arguments to those above, the Advisory Action references page 4, lines 8-23 and page 9, lines 13-18 of the final Office Action. Page 4, lines 8-23 of the Office Action address a number of elements of Applicants' claim 1, and it is unclear which portion of this section discloses or suggests this element of Applicants' claim 1. However, it is respectfully submitted that none of the citations to Turunen in this portion of the Office Action mention the use of a browser, or that "the payment is encoded and forwarded to the user's mobile telephone and transferred to the browser to authenticate the requested visiting access to the W-LAN." The cited section on page 9 of the Office Action references paragraph 1 of Turunen. Paragraph 1 of Turunen states that the "present invention relates to mobile Internet access and in particular to a method and apparatus for sending a security key to a mobile host for use in Internet access." As can be seen from this quotation of the entire section of paragraph 1 of Turunen, there is absolutely no mention of a browser, much less a PIN which is encoded, or an encoded PIN that is forwarded to a user's mobile telephone.

Salo and Mouly, like Turunen, do not disclose or suggest that "the PIN is encoded and forwarded to the user's mobile telephone and transferred to the browser to authenticate the requested visiting access to the W-LAN" as recited in Applicants' claim 1. Therefore, even if one skilled in the art were motivated to

combine Turunen, Salo and Mouly, such a combination would not disclose or suggest this element of Applicants' claim 1.

A similar argument to that discussed above was present in the After-Final Reply filed April 5, 2006. The Advisory Action states that these elements are not recited in the claims. Claim 1, however, clearly recites "the user's mobile telephone [is] transferred to the browser to authenticate the requested visiting access to the W-LAN." Therefore, contrary to the statement in the Advisory Action, this argument is clearly directed to an element specifically recited in claim 1.

IV. The Combination of Turunen, Salo and Mouly Does Not Disclose or Suggest that the Cost of such Access is Billed to the User's Cellular Mobile Account

Turunen also does not disclose or suggest that "the cost of such access is billed to the user's cellular mobile account." Turunen is completely silent on billing for access, and accordingly, cannot disclose or suggest billing such access to a cellular mobile account.

The Office Action relies upon Mouly for the disclosure of management standards for GSM networks. The Office Action concludes that "a user employing the GSM network for internet access would be billed for the services he consumes, and that the billing would be applied to the account he uses to obtain such services." This statement demonstrates that the application of Mouly in the rejection of Applicants' claim 1 is based upon a misinterpretation of

the plain language of the claim. In particular, Applicants' claim 1 specifically recites that the PIN is "transferred to the browser to authenticate the requested visiting *access to the W-LAN*." Mouly is directed to a GSM network, and is completely silent on providing *access to a W-LAN*. Accordingly, Mouly and the Office Action have not provided any disclosure or suggestion of billing a user' cellular mobile account for "requested visiting access to" a wireless LAN as recited in Applicants' claim 1.

Additionally, the manner in which billing for hot spot LANs is currently implemented highlights that the modification of Turunen by Mouly proposed by the Office Action is based upon improper hindsight reconstruction. Specifically, in order to access a hot spot LAN, conventional systems require payment to the operator of the hot spot LAN. The Office Action, however, has not provided any prior art reference or any other evidence that access to a hot spot LAN should be billed to a user's cellular mobile account. In the absence of such a prior art reference, one can only conclude that the modification of Turunen by Mouly proposed by the Office Action is based upon an attempt to pick and choose selected disclosures using Applicants' claims as a guide, which is clearly improper.

Nevertheless, Salo fails to remedy the above-identified deficiencies of Turunen and Mouly with respect to billing of the costs of such access, and therefore, even if one skilled in the art were motivated to combine Turunen, Salo

and Mouly in the manner described in the Office Action, such a combination could not disclose or suggest this element of Applicants' claim 1.

Applicants have identified a number of elements recited in claim 1 that are not disclosed or suggested by the combination of Turunen, Salo and Mouly, and have presented a detailed explanation addressing all arguments presented in all Patent Office communications. Because this combination does not disclose or suggest all of the elements of Applicants' claim 1, this combination cannot render claim 1 unpatentable.

REJECTION OF CLAIMS 2, 4, 8 and 9

Claims 2, 4, 8 and 9 all variously depend from Applicants' claim 1, and accordingly, are not obvious in view of the combination of Turunen, Salo and Mouly for at least those reasons stated above with regard to claim 1.

REJECTION OF CLAIM 3

The combination of Turunen, Salo and Mouly does not render Applicants' claim 3 obvious because the combination does not disclose or suggest "the portable computing device is coupled to the mobile telephone, and the transfer of the PIN to the browser is effected automatically by means including software supported by the portable computing device".

Instead of providing a prior art reference disclosing or suggesting the elements of claim 3, the Office Action cites *In re Venner*, 262 F.2d 91, 95 (CCPA 1958) for the proposition that automating an manual activity is obvious. As discussed in M.P.E.P. §§ 2144 and 2144.04, the examiner may rely upon legal precedent when "the facts in a prior legal decision are sufficiently similar to

those in an application under examination.” (emphasis added). *In re Venner* is directed to a permanent mold casting apparatus that the court held broadly provides “an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.” (M.P.E.P. § 2144.04 III.). Unlike the claims in *In re Venner* that “broadly” provided an automatic means to replace a manual activity, Applicants’ claim 3 recites particular structure, such as including software supported by the portable computing device, that transfers the PIN.

The Advisory Action states that *In re Venner* is sufficiently similar to the facts of the present application because the present application “simply recites the accomplishment of a result ‘automatically’ by some means.” Applicants’ claim 3 as amended, however, recites that the transfer is “effected automatically by software supported by the portable computing device.” This recitation identifies particular structure to perform the automatic transfer of the PIN, and does not merely recite that something is performed automatically.

Because the case law relied upon by the Office Action relates only to claims that broadly recite automating a manual activity, this case law is not applicable to the facts of the rejection of claim 3 which recites specific structure, and because the Office Action has not provided a prior art reference that discloses or suggests all of the elements of this claim, the Office Action has not provided enough information to establish a *prima facie* case of obviousness with respect to claim 3.

REJECTION OF CLAIM 5

The combination of Turunen, Salo and Mouly does not render Applicants' claim 5 obvious because the combination does not disclose or suggest "the user employs the browser to convey said identity information, via the first W-LAN, to the VAAA." To reject claim 5 the Office Action cites the sending a care-of-address from a mobile host to the host's home network disclosed in col. 3, lines 50-55 of Turunen, and the use of a web browser to send a PIN to a login server disclosed in col. 9, lines 4-17 of Salo. However, the care-of-address of Turunen and the PIN of Salo serve completely different purposes and, therefore, cannot be identified as the same element. While the care-of-address of Turunen is sent to the home network in order to enable the home network to redirect datagrams to that new care-of-address, the PIN of Salo is used to authenticate the access to the remote access device. Accordingly, it appears that the rejection of claim 5 is based upon improper hindsight reconstruction in which various elements of Turunen and Salo are selected for the sole purpose of rejecting Applicants' claim 5, and not because one skilled in the art would have considered the combination of such elements obvious.

The Advisory Action states that this argument, as presented in the After-Final Reply filed April 5, 2006, should consider the complete cited portions of Turunen and Salo. These complete citations (i.e., the 5 lines of Turunen and the 13 lines of Salo) were addressed above, and in the After-Final Reply. Therefore, it is unclear which portions of Turunen and Salo to which the Advisory Action is

referring. The Advisory Action also references the rejection of claim 1 to “understand the proper context” of the rejection of claim 5. However, it is unclear how the rejection of claim 1 provides this context, and Applicants respectfully request that the next Office Action clarify this statement.

REJECTION OF CLAIMS 6 and 7

The combination of Turunen, Salo and Mouly does not render Applicants’ claims 6 and 7 obvious because the combination does not disclose or suggest that “the PIN is combined with masking information” as recited in claim 6 or that “said masking information is randomly derived” as recited in claim 7. The Office Action relies upon the GSM encryption as corresponding to the masking information recited in Applicants’ claims 6 and 7. However, a mere encoding of an authentication key cannot be regarded as a combination with masking information, but instead, the authentication key of Turunen is transmitted as such.

In response to this argument as presented in the After-Final Reply filed April 5, 2006, the Advisory Action relies upon Applicants’ own disclosure. Specifically, the Advisory Action cites paragraphs 17 and 19 of the corresponding patent application publication. Paragraph 17 merely states that “entered information is combined with a randomly derived masking data string and sent across the W-LAN to a local service selection gateway (SSG) 5 using a secure communication protocol.” Paragraph 19 states that a PIN is encoded with an original masking data string and that the encoded string can be manually or

automatically transferred to the portable device. The Advisory Action's reasoning appears to be that if combining a PIN with masking information is encoding, then any type of encoding involves combining a PIN with masking information. This reasoning, however, is not proper because there are many different ways of encoding information, and combining a PIN with masking information as recited in Applicants' claim 5 is one of these different ways.

The Advisory Action again states that these arguments do not comply with 37 C.F.R. § 1.111(b) and (c). For similar reasons to those discussed above, it is respectfully submitted that these arguments do comply with the cited rules.

For at least those reasons stated above, it is respectfully requested that the rejection of claims 1-9 as being obvious in view of the combination of Turunen, Salo and Mouly be withdrawn.

STATEMENT PURSUANT TO 37 C.F.R. § 1.111(c) FOR NEW CLAIMS

11-21

New claim 11 is patentably distinguishable over the current grounds of rejection because the current grounds of rejection does not disclose or suggest the following elements of new claim 11:

transmitting, by a mobile telephone to a visitor authentication, authorization and accounting (VAAA) server, a request for access to the first W-LAN, the request including identity information of a home authentication, authorization and accounting (HAAA) server;

receiving, by the mobile telephone from the HAAA server, a personal identification number (PIN);

transferring the PIN to a browser of a portable computing device

New claims 12-15 are patentably distinguishable over the current grounds of rejection at least by virtue of their dependency from new claim 11.

New claim 16 is patentably distinguishable over the current grounds of rejection because the current grounds of rejection does not disclose or suggest the following elements of new claim 16:

receiving, by a home authentication, authorization and accounting (HAAA) server of a second W-LAN from a visitor authentication, authorization and accounting (VAAA) server of the first W-LAN, a request for access to the first W-LAN;

establishing, by the second W-LAN, a W-LAN account for the user;

generating, by the HAAA server, a personal identification number (PIN);

transmitting, by the HAAA server, the PIN to the user;
and

billing the user's account with the second W-LAN for access to the first W-LAN.

New claims 17-20 are patentably distinguishable over the current grounds of rejection at least by virtue of their dependency from new claim 16.


New claims 21 is patentably distinguishable over the current grounds of rejection at least by virtue of its dependency from claim 3.

In light of the foregoing remarks, this application should be in condition for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #3036/50289).

Respectfully submitted,

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